

Article 3

Federal Operating Permit

This permit is based upon Federal Clean Air Act acid rain permitting requirements of Title IV, federal operating permit requirements of Title V; and Chapter 80, Article 3 and Chapter 140 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, 10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, 9 VAC 5-80-360 through 9 VAC 5-80-700, and 9 VAC 5-140-10 through 9 VAC 5-140-900 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name: Dominion Generation
Facility Name: Dominion – Elizabeth River CT Station
Facility Location: 2837 S Military Hwy,
Chesapeake, VA
VA Registration Number: Registration No.: 61108
TRO-61108

This permit includes the following programs:

Federally Enforceable Requirements - Clean Air Act (Sections I through VI)
Federally Enforceable Requirements - Title IV Acid Rain (Section VII)
Federally Enforceable Requirements - NOx Budget Trading Requirements (Section VIII)

December 1, 2004
Effective Date

December 31, 2006
Expiration Date

DRAFT
Signature Date

Director, Department of Environmental Quality (for)

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I. Facility Information

Permittee Information

Dominion Generation
5000 Dominion Blvd.
Glen Allen, VA 23060

Responsible Official

Mr. O. Preston Sloane
Station Director

Acid Rain Designated Representative and NO_x Budget Trading Authorized Account Representative

Mr. J. David Rives, P.E.
Vice President, Fossil & Hydro
USEPA ATS-AAR ID number: 2099

Facility ID

Dominion – Elizabeth River CT Station
2837 South Military Hwy,
Chesapeake, VA 23323-0286

Facility Contact person

D. Scott Morelen
(757) 719-1134

County-Plant Identification Number: 51-550-00161

ORIS Code: 52087

NATS Facility Identification Number: 05208700CTZ1-CTZ3

Facility Description: SIC Code: 4911, NAICS Code: 221112

This facility is an electric generation facility using three simple cycle gas combustion turbines, and associated support equipment. The turbines are low mass emissions (LME) units as defined in 40 CFR 75.2 (actual emissions below 50 tons NO_x per control period, and 100 tons NO_x per year). As specified in 40 CFR 75.19, the turbines use optional NO_x emission estimation procedures in lieu of continuous NO_x emissions monitoring systems to determine NO_x emissions. The facility became subject to the Acid Rain program when it was purchased by Virginia Electric and Power Company on November 30, 2004. Dominion Generation is the operator of this facility.

II. Emission Units

Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emissions Unit Description	Rated Heat* Input Capacity (10 ⁶ BTU/hr)	Pollution Control Device (PCD)	PCD ID	Pollutant Controlled	Applicable Permit Date
Fuel Burning Equipment							
CT1-A	S1	Westinghouse W501D5 simple cycle turbine firing natural gas (primary)/ 1991	1406 (1553)	Westinghouse Water Injection / 1991	APC-1	NO _x	2005
				Westinghouse Low NO _x Burners / 1991	APC-2		
CT1-B	S1	Westinghouse W501D5 simple cycle turbine firing #2 fuel oil (secondary)/1991	1266 (1400)				2005
CT2-A	S2	Westinghouse W501D5 simple cycle turbine firing natural gas (primary)/ 1991	1406 (1553)	Westinghouse Water Injection / 1991	APC-3	NO _x	2005
				Westinghouse Low NO _x Burners / 1991	APC-4		
CT2-B	S2	Westinghouse W501D5 simple cycle turbine firing #2 fuel oil (secondary)/1991	1266 (1400)				2005
CT3-A	S3	Westinghouse W501D5 simple cycle turbine firing natural gas (primary)/ 1991	1406 (1553)	Westinghouse Water Injection / 1991	APC-5	NO _x	2005
				Westinghouse Low NO _x Burners / 1991	APC-6		
CT3-B	S3	Westinghouse W501D5 simple cycle turbine firing #2 fuel oil (secondary)/1991	1266 (1400)				2005

III. Fuel Burning Equipment Requirements - (Gas Turbines CT1, CT2, CT3)

A. Definitions

1. **Natural Gas** - means a naturally occurring fluid mixture of hydrocarbons (e.g., methane, ethane, or propane) produced in geological formations beneath the Earth's surface that maintains a gaseous state at standard atmospheric temperature and pressure under ordinary conditions. Natural gas contains 20.0 grains or less of total sulfur per 100 standard cubic feet. Equivalents of this in other units are as follows: 0.068 weight percent total sulfur, 680 parts per million by weight (ppmw) total sulfur, and 338 parts per million by volume (ppmv) at 20 degrees Celsius total sulfur. Additionally, natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 950 and 1100 British thermal units (Btu) per standard cubic foot. Natural gas does not include the following gaseous fuels: landfill gas, digester gas, refinery gas, sour gas, blast furnace gas, coal-derived gas, producer gas, coke oven gas, or any gaseous fuel produced in a process which might result in highly variable sulfur content or heating value.
2. **Start-up** – The period starting when fuel is first combusted and ending when the turbine reaches the allowed operating load (as defined in Condition B.2), not to exceed 60 minutes.
3. **Shutdown** – the period starting when the operator initiates a shutdown procedure and ending when fuel is no longer being combusted or when the turbine shutdown is aborted to bring the turbine back on line.

B. Limitations

1. **Emission Controls** –Nitrogen dioxide (NO_x) emissions from each turbine shall be controlled by fuel quality control and water injection. The turbines and water injection systems shall be provided with adequate access for inspection. The water injection shall be in operation at all times when the turbines are operating within the allowed range as defined in Condition 2 of this section.
(9 VAC 5-50-260, 9 VAC 5-80-490 B & C and Condition 6 of the 2005 Permit)
2. **Operating Ranges** – Each turbine shall be operated at not less than 85% and not greater than 100% of rated capacity, with the exception of startup and shutdown. 100% rated capacity is defined as the maximum load achievable given ambient weather and gas turbine performance conditions.
(9 VAC 5-80-490 B & C and Condition 8 of the 2005 Permit)
3. **Operating Hours** - The three turbines (combined) shall not operate more than 6,000 hours per year, and no single unit shall operate for more than 2,500 hours per year, each calculated monthly as the sum of each consecutive 12-month period.
(9 VAC 5-80-490 B & C and Condition 9 of the 2005 Permit)
4. **Fuel** - The approved fuels for the turbines are No. 2 fuel oil and natural gas. A change in the fuel may require a permit to modify and operate.
(9 VAC 5-80-490 B & C and Condition 10 of the 2005 Permit)
5. **Fuel Throughput** - The three turbines (combined) shall consume no more than 59.6×10^6 gallons of fuel oil and $9,000 \times 10^6$ cubic feet of natural gas per year, calculated monthly as the sum of each consecutive 12-month period. Fuel consumption shall be determined for each unit in accordance with the methods used to show compliance with 9 VAC 5 Chapter 140 if the “Long Term Fuel Flow” method is being used, otherwise consumption shall be determined by a method that has been approved by the Department.
(40 CFR 75.19(c)(3)(ii), 9 VAC 5-80-490 B & C and Condition 11 of the 2005 Permit)

6. **Fuel** – The No. 2 fuel oil and natural gas shall meet the specifications below:

No. 2 fuel oil

Maximum sulfur content:

0.2% by weight

Maximum nitrogen content:

concentration during most recent stack test
not to exceed 0.05% by weight

Natural Gas:

Maximum sulfur content:

0.06% by weight or

Maximum sulfur content:

20.0 grains/100 standard cubic feet

(9 VAC 5-80-490 B & C and Condition 12 of the 2005 Permit)

7. **Emission Limits** - Emissions from the operation of each turbine shall not exceed the limits specified below:

Pollutant	Firing Natural Gas		Firing Fuel Oil		Annual Limit (tons/yr)
	Concentration ^(a) (ppmvd)	Hourly Limit ^(b) (lbs/hr)	Concentration ^(a) (ppmvd)	Hourly Limit ^(b) (lbs/hr)	
Particulate Matter ^(c)		6.0		22.0	66.0
PM-10 ^(c)		6.0		22.0	66.0
Sulfur Dioxide		87.0		290.0	870.0
Nitrogen Oxides (as NO ₂)	25	139.0	42 (FBN ≤ 0.015, wt %)	233.0	1,032.0
			(42 + 400 FBN) (0.015 < FBN ≤ 0.05) (weight wt %)	344.0 (0.015 < FBN ≤ 0.05) (weight wt %)	
Carbon Monoxide ^(c)	30	87.0	30	84.0	261.0
Volatile Organic Compounds (VOC) ^(c)	4	6.5	16	26.7	80.1
Sulfuric Acid Mist (H ₂ SO ₄) ^(c)		13.2		44.4	133.2
Beryllium				0.0005	0.0015

^(a) at ISO conditions and 15% Oxygen

^(b) Averaged for each operating hour

^(c) Except during start-up, shutdown and malfunction conditions

These emissions are derived from the estimated overall emission contribution from operating limits.

Exceedance of the operating limits shall be considered credible evidence of the exceedance of emission limits.

Compliance with these emission limits may be determined as stated in Condition numbers 1 - 6 and E.2.

(9 VAC 5-50-260 and 9 VAC 5-60-320, 9 VAC 5-80-490 B & C, and Condition 14, 15, and 16 of the 2005 Permit)

8. **Visible Emission Limit** - Visible emissions from each of the turbines shall not exceed 10% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 20% opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.
(9 VAC 5-50-80 and 9 VAC 5-50-260, 9 VAC 5-80-490 B & C, and Condition 17 of the 2005 Permit)

9. **Requirements by Reference** - Except where this permit is more restrictive than the applicable requirement, each turbine shall be operated in compliance with the requirements of 40 CFR 60, Subpart GG. (9 VAC 5-50-400 and 9 VAC 5-50-410, 9 VAC 5-80-490 B & C, and Condition 19 of the 2005 Permit)

C. Monitoring

1. **Monitoring Devices** - Each turbine shall be equipped with a device to continuously monitor and record the fuel consumption, water injection and the ratio of water-to-fuel being fired in the turbine. ~~The system shall be accurate to within $\pm 5.0\%$.~~ Each monitoring device shall be installed, maintained and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. ~~The water flow meter shall be recalibrated before each stack test. The fuel flow meter will be checked using a mass balance of fuel in tank.~~ Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the turbines are operating. (9 VAC 5-50-20 C, 9 VAC 5-50-410, 9 VAC 5-80-490 B & C and Condition 7 of the 2005 Permit)
2. **Visible Emission Observations (VEO)** - The permittee shall perform VEOs on the exhaust stack of each Westinghouse W501D5 simple cycle combustion turbine according to the following operation frequency guidelines:

Operating Schedule/History

< 20 hrs / year and no OV testing*
 < 20 hrs / year with OV testing*
 20 hrs/yr < hours operated < 200 hrs/yr
~~every 200 hours of operation~~ hours operated > 200 hrs/yr

Observation Frequency

No Evaluations Required
 Once per year
 Once per year
 Once every 200 hours

*OV testing means operability verification testing

Each VEO shall be performed for a sufficient period of time to identify the presence of visible emissions. If visible emissions are observed, a Method 9-certified observer shall conduct a VEO. If visible emissions do not appear to exceed 10% opacity, no action shall be required. However, if the observed visible emissions appear to exceed 10% opacity, a visible emission evaluation (VEE) shall be conducted using 40 CFR Part 60, Appendix A, Method 9, for a period of not less than 6 minutes. If the average opacity exceeds 10%, modifications and/or repairs shall be performed to correct the problem. Once the problem is corrected another 6 minute VEE shall be performed to prove that the corrective action taken was effective. The VEE observer shall be Method 9-certified. The permittee shall maintain a log to demonstrate compliance with this condition. The log shall include the date and time of the observations, the observer's name, whether or not there were visible emissions, any VEE recordings and any necessary corrective action taken. The logbook shall be kept at the facility and available for inspection by the DEQ.

(9 VAC 5-50-80 and 9 VAC 5-50-260, 9 VAC 5-80-490 B & C, and Condition 18 of the 2005 Permit)

D. Recordkeeping

1. **On Site Records** - The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the TRO. These records shall include, but are not limited to:
 - a. Records of the hourly averages of the water-to-fuel ratio for each turbine and acceptable range for that hour.
 - ~~b. Calibration records for the flow meters used to determine the fuel flow and water injection rate to each turbine. Calibration records to show that the accuracy of the flow meters is within $\pm 5\%$.~~

- c. Hourly records of the operating rate (load rate) expressed as a percentage of rated capacity of each turbine to demonstrate compliance with Condition B.2.
- d. Annual hours of operation of each of the combustion turbines and the combined number of hours, calculated monthly as the sum of each consecutive 12-month period.
- e. Annual throughput of No. 2 fuel oil, calculated monthly as the sum of each consecutive 12-month period.
- f. Annual throughput of natural gas, calculated monthly as the sum of each consecutive 12-month period.
- g. Fuel analyses/certifications to satisfy conditions B.6 and D.2.
- h. Parameter monitoring plan required by 60.334(g) shall be available on-site.
- i. Records of VEO and VEE logs to satisfy Condition C.2.
- j. Scheduled and unscheduled maintenance and operator training.
- k. Monthly and annual NO_x emissions (in pounds or tons) from the operation of the three gas turbines (combined). Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period. ~~Method of calculation shall be approved in advance by the Tidewater Regional Office~~
- l. Description of method used to calculate NO_x emissions including equations, example calculations and procedures used to determine Btu/gal, fuel usage, unit lb/mmBtu, or Btu/cf.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years. (9 VAC 5-50-50, 9 VAC 5-80-490 F and Condition 22 of the 2005 Permit)

2. **Fuel Certification** - The permittee shall:

- a. Pipeline No. 2 Fuel Oil
 - (1) Sample the oil in the storage tank using approved ASTM methods after each receipt of oil. The sulfur content and the nitrogen content of the sample shall be determined using approved ASTM methods (ASTM D129, D1266, D1552, D2622, D4294, or D5453 for sulfur and ASTM D2597, D4629 or D5762 for nitrogen), or any approved ASTM method incorporated in 40 CFR by reference, and
 - (2) Receive a statement from the fuel supplier for each delivery stating that the fuel oil received complies with the American Society for Testing and Materials specifications for numbers 1 or 2 fuel oil or sample the oil and have it tested to verify that the distillate oil complies with the American Society for Testing and Materials specifications for numbers 1 or 2 fuel oil.
- b. Natural gas: Obtain documentation that the maximum sulfur content is less than or equal to 20.0 grains/100scf or 0.06 % by weight. Acceptable documentation can be in the form of any of the following if valid and current
 - (1) Purchase contract,
 - (2) Tariff sheets of transportation,
 - (3) Pipeline transportation contracts, or
 - (4) Analysis of samples in accordance with Part 75.

(40 CFR 60.334(i)(1), 9 VAC 5-80-490 B & C, and Condition 13 of the 2005 Permit)

3. **Training** - The permittee shall maintain records of the required training including a statement of time, place and nature of training provided. The permittee shall have available good written operating procedures and a maintenance schedule for the boiler. These procedures shall be based on the manufacturer's recommendations,

at minimum. All records required by this condition shall be kept on site and made available for inspection by the DEQ.

(9 VAC 5-80-490 C)

E. Testing

1. **Testing/Monitoring Ports** - The permitted facility shall be constructed so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods. Test ports shall be provided when requested. (9 VAC 5-50-30 F and 9 VAC 5-80-490 E & F and Condition 21 of the 2005 Permit)
2. **Stack Tests** – Periodically and upon request by the DEQ, the permittee shall conduct additional performance tests for NO_x (by methods referenced in 40 CFR Part 60, Subpart GG), CO (by Method 10 or 10B) and VOC (by Method ~~25~~, 25A ~~or 25B~~) from the turbines (as specified below) to demonstrate compliance with the emission limits contained in this permit. Data from the monitoring of water-to-fuel ratio obtained during tests must be included in stack test emission report.

Two of the three gas turbines shall be tested during each five year Title V permit term. The testing shall take place within the first 24 months of each Title V permit term. Each turbine shall be tested at least once every other testing cycle. Each test shall be conducted while operating the turbine at 85% and 100% load capacities, firing natural gas only and firing fuel oil only. The testing shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30. The details and schedule of the tests shall be arranged in advance with the Tidewater Regional Office. The permittee shall submit an approvable test protocol at least 30 days prior to testing. One copy of the test results shall be submitted to the Tidewater Regional Office within 60 days after test completion and shall conform to the test report format enclosed with this permit.

A Visible Emissions Evaluation (VEE), in accordance with 40 CFR Part 60, Appendix A, Method 9, shall also be conducted on the gas turbine's exhaust stack at each of the specified load conditions while firing oil. The VEE shall consist of 1 set of 24 consecutive observations (at 15 second intervals) to yield a 6-minute average. (9 VAC 5-50-30, 9 VAC 5-50-410, 9 VAC 5-80-1180 and Condition 20 of the 2005 Permit)

3. **Testing** - If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following test methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method (40 CFR Part 60, Appendix A)
VOC	EPA Method 48, 25, 25A, 25B
VOC	EPA Methods 24, 24A
NO _x	EPA Methods 7E, 20
SO ₂	EPA Method 6C
CO	EPA Methods 10, 10B
PM/PM ₁₀	EPA Methods 5, 17
Visible Emission	EPA Method 9

(9 VAC 5-80-490 E)

F. Reporting

1. **Semi-annual Reports** - The permittee shall submit excess emissions and monitoring downtime reports in accordance with 40 CFR 60.7(c) to the Director, Tidewater Regional Office within 30 days after the end of each semi-annual period.
 - a. **NO_x emissions**
 - (1) Periods of excess NO_x emissions are defined as any unit operating hour during which the average water-to-fuel ratio, as measured by the continuous monitoring system (CMS), falls below the acceptable water-to-fuel ratio determined to demonstrate compliance with 40 CFR 60.332 by the most recent performance test. Any unit operating hour in which no water or steam is injected into the turbine shall also be considered an excess emission, including times of startup, shutdown and malfunction.
 - (2) Monitor downtime includes, but is not limited to, any unit operating hour in which water is injected into the turbine, but essential parametric data needed to determine the appropriate water-to-fuel ratio are unavailable or invalid.
 - (3) If the ERCTS elects to take an emission allowance for fuel bound nitrogen, the following applies:
 - (i) An excess emission shall be the period of time during which the fuel-bound nitrogen (N) is greater than the value measured during the performance test required in §60.8 and used to determine the allowance. The excess emission begins on the date and hour of the sample which shows that N is greater than the performance test value, and ends with the date and hour of a subsequent sample which shows a fuel nitrogen content less than or equal to the performance test value.
 - (ii) A period of monitor downtime begins when a required sample is not taken by its due date. A period of monitor downtime also begins on the date and hour that a required sample is taken, if invalid results are obtained. The period of monitor downtime ends on the date and hour of the next valid sample.
 - b. **SO₂ Emissions**
 - (1) An excess emission occurs each unit operating hour included in the period beginning on the date and hour of any sample for which the sulfur content of the fuel being fired in the gas turbine exceeds 0.2 weight percent and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit.
 - (2) A period of monitor downtime begins when a required sample is not taken by its due date. A period of monitor downtime also begins on the date and hour of a required sample, if invalid results are obtained. The period of monitor downtime shall include only unit operating hours, and ends on the date and hour of the next valid sample.
 - c. Each excess emissions report shall include the average steam or water-to-fuel ratio, average fuel consumption, ambient conditions (temperature, pressure, and humidity), gas turbine load, and (if applicable) the nitrogen content of the fuel during each excess emission. You do not have to report ambient conditions if you opt to use the worst case ISO correction factor as specified in §60.334(b)(3)(ii), or if you are not using the ISO correction equation under the provisions of §60.335(b)(1).

One copy of the semi-annual report shall be submitted to the U.S. Environmental Protection Agency at the address specified below:

Associate Director
Office of Air Enforcement (3AP10)
U.S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

(9 VAC 5-50-50 E, 9 VAC 5-170-160, 40 CFR 60.334(j) and 9 VAC 5-80-490 F and Condition 23 of the 2005 Permit)

IV. Insignificant Emissions Units

The following emissions units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Emissions Unit No.	Emissions Unit Description	Citation (9 VAC_)	Pollutant Emitted (5-80-720 B.)	Rated Capacity (5-80-720 C.)
Tank 401	Distillate Fuel Oil Storage Tank, constructed in 1955	5-80-720 B	VOC	1,782,060 gallons
IC-1	Model P-185D air compressor, rated at 0.56 mmbtu/hr	5-80-720 B	NO _x , PM, PM ₁₀ , VOC, CO	84 HP
IL-1	Sandblaster	5-80-720 B	PM, PM ₁₀	Not Required
IL-2	Fuel oil valves, pumps, flanges	5-80-720 B	VOC	Not Required
IL-3	Station battery	5-80-720 B	HCl	Not Required
IL-4	Turbine lube oil combustion from leakage	5-80-720 B	NO _x , PM, PM ₁₀ , VOC, CO	Not Required
IL-5	Turbine lube oil venting	5-80-720 B	VOC	Not Required
IL-6	Drain collection tank	5-80-720 B	VOC	Not Required
IL-7	Cold solvent cleaner	5-80-720 B	VOC	Not Required

These emissions units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emissions units in accordance with 9 VAC 5-80-110.

V. Permit Shield & Inapplicable Requirements

Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Requirements Which Do Not Apply to the Source			
Unit Ref No	Citation	Requirement Description	Why it Does not Apply
Tank 401	40 CFR 60 Subparts K, Ka, and Kb	Standards of Performance for Storage Vessels	Installation year was reported as 1955; construction is determined to have commenced before June 11, 1973 (for Subpart K), before May 18, 1978 (for Subpart Ka), and before July 23, 1984 (for Subpart Kb).
Tank 608	40 CFR 60 Subparts K and Ka	Standards of Performance for Storage Vessels	Installation was reported to have occurred in March, 1992; construction is determined to have commenced after May 19, 1978 (for Subpart K), and after July 24, 1984 (for Subpart Ka).
Facility	40 CFR 63 Subpart T	National Emission Standards for Halogenated Solvent Cleaning	CALP does not own or operate any equipment meeting the applicability criteria of this NESHAP subpart.
Facility	40 CFR 63 Subpart OO	National Emission Standards for Tanks – Level 1	This subpart does not apply to the control of air emissions from Tanks 601 and 608 because another subpart of 40 CFR parts 60, 61, or 63 has not referenced the use of this NESHAP subpart for air emission control.
Facility	40 CFR 63 Subpart VV	National Emission Standards for Oil-Water Separators and Organic-Water Separators	This section is applicable only to facilities subject to other subparts that reference this subpart. CALP is not subject to any subparts that reference this subpart.
Facility	9 VAC 5-80-360; 9 VAC 5-80-705;	Acid Rain	CALP does not meet applicability criteria. The final amendment to the PPA came on December 21, 1990.
Facility	40 CFR 68	Chemical Accident Prevention Provisions	CALP does not exceed threshold values for designated substances.
Facility	9 VAC 5-70-10; 9 VAC 5-70-70	Applicability of, and Compliance with, Air Quality Standards; Nonattainment Areas	The Hampton Roads area has recently been redesignated an attainment area, therefore, despite its listing in Appendix K, the requirements do not apply.

Nothing in this permit shield shall alter the provisions of § 303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by the administrator pursuant to § 114 of the federal Clean Air Act, (ii) the Board pursuant to § 10.1-1314 or § 10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to § 10.1-1307.3 of the Virginia Air Pollution Control Law.
(9 VAC 5-80-500)

VI. General Conditions

A. Federal Enforceability

All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.

(9 VAC 5-80-490 N)

B. Permit Expiration

This permit has a fixed term of five years. The expiration date shall be the date five years from the effective date of the permit. Unless the owner submits a timely and complete renewal application to DEQ consistent with 9 VAC 5-80-430, the right of the facility to operate shall terminate upon permit expiration.

1. The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.
2. If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 3, Part II of 9 VAC 5 Chapter 80, until the Board takes final action on the application under 9 VAC 5-80-510.
3. No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9 VAC 5-80-430 for a renewal permit, except in compliance with a permit issued under Article 3, Part II of 9 VAC 5 Chapter 80.
4. If an applicant submits a timely and complete application under section 9 VAC 5-80-430 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9 VAC 5-80-500, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.
5. The protection under subsections F 1 and F 5 (ii) of section 9 VAC 5-80-430 shall cease to apply if, subsequent to the completeness determination made pursuant section 9 VAC 5-80-430 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application.

(9 VAC 5-80-430 B, C and F, 9 VAC 5-80-490 D and 9 VAC 5-80-530 B)

C. Recordkeeping and Reporting

1. All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:
 - a. The date, place as defined in the permit, and time of sampling or measurements.
 - b. The date(s) analyses were performed.
 - c. The company or entity that performed the analyses.
 - d. The analytical techniques or methods used.
 - e. The results of such analyses.
 - f. The operating conditions existing at the time of sampling or measurement.
(9 VAC 5-80-490 F)
2. Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.
(9 VAC 5-80-490 F)
3. The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than **March 1** and **September 1** of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-430 G and shall include:
 - a. The time period included in the report. The time periods to be addressed are January 1 to June 30 inclusive and July 1 to December 31 inclusive, beginning January 2006.
 - b. All deviations from permit requirements. For purposes of this permit, a deviation includes, but are not limited to:
 - (1) Exceedance of emissions limitations or operational restrictions,
 - (2) Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or compliance assurance monitoring which indicates an exceedance of emission limitations or operational restrictions; or,
 - (3) Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.
 - c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that “no deviations from permit requirements occurred during this semi-annual reporting period.” The time period included in the report. The time periods to be addressed are
(9 VAC 5-80-490 F)

D. Annual Compliance Certification

Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than [March 1](#) each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices. The compliance certification shall comply with such additional requirements that may be specified pursuant to § 114(a)(3) and § 504(b) of the federal Clean Air Act. This certification shall be signed by a responsible official, consistent with VAC 5-80-430 G, and shall include:

1. The time period included in the certification. The time period to be addressed is January 1 to December 31.
2. A description of the means for assessing or monitoring the compliance of the source with its emissions limitations, standards, and work practices.
3. The identification of each term or condition of the permit that is the basis of the certification.
4. Consistent with subsection 9 VAC 5-80-490 E, the method or methods used for determining the compliance status of the source at the time of certification and over the certification period.
5. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance.
6. The status of compliance with the terms and conditions of this permit for the certification period.
7. Such other facts as the permit may require to determine the compliance status of the source.

One copy of the annual compliance certification shall be sent to EPA at the following address:

Clean Air Act Title V Compliance Certification (3AP00)
U.S. Environmental Protection Agency, Region III
1650 Arch Street
Philadelphia, PA 19103-2029.
(9 VAC 5-80-490 K.5)

E. Permit Deviation Reporting

The permittee shall notify the Director, Tidewater Regional Office within four daytime business hours, after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to General Condition VI C.3 of this permit.
(9 VAC 5-80-490 F.2)

F. Failure/Malfunction Reporting

In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall, as soon as practicable but no later than four daytime business hours after discovery, notify the Director, Tidewater Regional Office by facsimile transmission, telephone or telegraph of such failure or malfunction and shall within 14-days provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Director, Tidewater Regional Office.
(9 VAC 5-20-180 C)

1. The emission units that have continuous monitors subject to 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not subject to the 14-day written notification.
2. The emission units subject to the reporting and the procedure requirements of 9 VAC 5-40-50 C and the procedures of 9 VAC 5-50-50 C are listed below:
 - a. Combustion Turbine (CT1)
 - b. Combustion Turbine (CT2)
 - c. Combustion Turbine (CT3)
3. Each owner required to install a continuous monitoring system subject to 9 VAC 5-40-41 or 9 VAC 5-50-410 shall submit a written report of excess emissions (as defined in the applicable emission standard) to the board for every calendar quarter. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter and shall include the following information:
 - a. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h) or 9 VAC 5-40-41 B6, any conversion factors used, and the date and time of commencement and completion of each period of excess emissions;
 - b. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the source. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted;
 - c. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments; and
 - d. When no excess emissions have occurred or the continuous monitoring systems have not been inoperative, repaired or adjusted, such information shall be stated in the report.
4. All emission units not subject to 9 VAC 5-40-50 C and 9 VAC 5-50-50C must make written reports within 14 days of the malfunction occurrence.
(9 VAC 5-20-180 C, and 9 VAC 5-50-50)

G. Severability

The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.

(9 VAC 5-80-490 G.1)

H. Duty to Comply

The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

(9 VAC 5-80-490 G.2)

I. Need to Halt or Reduce Activity not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(9 VAC 5-80-490 G.3)

J. Permit Modification

A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9 VAC 5-80-50, 9 VAC 5-80-1100, 9 VAC 5-80-1790, or 9 VAC 5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios.

(9 VAC 5-80-490 G and L, 9 VAC 5-80-550 and 9 VAC 5-80-660)

K. Property Rights

The permit does not convey any property rights of any sort, or any exclusive privilege.

(9 VAC 5-80-490 G.5)

L. Duty to Submit Information

1. The permittee shall furnish to the board, within a reasonable time, any information that the board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the board along with a claim of confidentiality.

(9 VAC 5-80-490 G.6)

2. Any document (including reports) required in a permit condition to be submitted to the board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-430 G.9.

(9 VAC 5-80-490 K.1)

M. Duty to Pay Permit Fees

The owner of any source for which a permit under 9 VAC 5-80-360 through 9 VAC 5-80-700 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 et seq. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by April 15 of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department.

(9 VAC 5-80-490 H)

N. Fugitive Dust Emission Standards

During the operation of a stationary source or any other building, structure, facility or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited, to the following:

1. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;
2. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;
3. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or other similar operations;
4. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and
5. The prompt removal of spilled or traced dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9 VAC 5-40-20 E, 9 VAC 5-50-90, and 9 VAC 5-50-50)

O. Startup, Shutdown, and Malfunction

At all times, including periods of startup, shutdown, soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

(9 VAC 5-40-20 E and 9 VAC 5-50-20 E)

P. Alternative Operating Scenarios

Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-500 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80 Article 3.

(9 VAC 5-80-490 J)

Q. Inspection and Entry Requirements

The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

1. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.

2. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.
3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.
4. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.
(9 VAC 5-80-490 K.2)

R. Reopening For Cause

The permit shall be reopened by the board if additional federal requirements become applicable to a major source with a remaining permit term of three or more years. Such a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9 VAC 5-80-430 F.

1. The permit shall be reopened if the board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
2. The permit shall be reopened if the administrator or the board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
3. The permit shall not be reopened by the board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-490 D.
(9 VAC 5-80-490 L)

S. Permit Availability

Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.
(9 VAC 5-80-510 G)

T. Transfer of Permits

1. No person shall transfer a permit from one location to another or from one piece of equipment to another.
(9 VAC 5-80-520)
2. In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-560.
(9 VAC 5-80-520)
3. In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the board of the change in source name within 30 days of the name change and shall comply with the requirements of 9 VAC 5-80-560.
(9 VAC 5-80-520)

U. Malfunction as an Affirmative Defense

1. A malfunction constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if the requirements of paragraph 2 of this condition are met.
2. The affirmative defense of malfunction shall be demonstrated by the permittee through properly signed, contemporaneous operating logs, or other relevant evidence that show the following:
 - a. A malfunction occurred and the permittee can identify the cause or causes of the malfunction.
 - b. The permitted facility was at the time being properly operated.
 - c. During the period of the malfunction the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit.
 - d. The permittee notified the board of the malfunction within two working days following the time when the emission limitations were exceeded due to the malfunction. This notification shall include a description of the malfunction, any steps taken to mitigate emissions, and corrective actions taken. The notification may be delivered either orally or in writing. The notification may be delivered by electronic mail, facsimile transmission, telephone, or any other method that allows the permittee to comply with the deadline. This notification fulfills the requirements of 9 VAC 5-80-490 F.2.b to report promptly deviations from permit requirements. This notification does not release the permittee from the malfunction reporting requirement under 9 VAC 5-20-180 C.
3. In any enforcement proceeding, the permittee seeking to establish the occurrence of a malfunction shall have the burden of proof. The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any requirement applicable to the source.
4. The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any applicable requirement.
(9 VAC 5-80-650)

V. Permit Revocation or Termination for Cause

A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 3. The Board may suspend, under such conditions and for such period of time as the Board may prescribe any permit for any of the grounds for revocation or termination or for any other violations of these regulations.

(9 VAC 5-80-490 G & L, 9 VAC 5-80-640 and 9 VAC 5-80-660)

W. Duty to Supplement or Correct Application

Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submits such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.

(9 VAC 5-80-430 E)

X. Stratospheric Ozone Protection

If the permittee handles or emits one or more Class I or II substance subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.

(40 CFR Part 82, Subparts A - F)

Y. Accidental Release Prevention

If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined under 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.

(40 CFR Part 68)

Z. Changes to Permits for Emissions Trading

No permit revision shall be required, under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.

(9 VAC 5-80-490 I)

AA. Emissions Trading

Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

1. All terms and conditions required under 9 VAC 5-80-490 except subsection N shall be included to determine compliance.
2. The permit shield described in 9 VAC 5-80-500 shall extend to all terms and conditions that allow such increases and decreases in emissions.
3. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-360 through 9 VAC 5-80-700.

(9 VAC 5-80-490 I)

VII. Title IV (Phase II Acid Rain) Permit Allowances and Requirements

A. Statutory and Regulatory Authorities

In accordance with the Air Pollution Control Law of Virginia §10.1-1308 and §10.1-1322, the Environmental Protection Agency (EPA) Final Full Approval of the Operating Permits Program (Titles IV and V) published in the Federal Register December 4, 2001, Volume 66, Number 233, Rules and Regulations, Pages 62961-62967 and effective November 30, 2001, and Title 40, the Code of Federal Regulations §72.1 through 76.16, the Commonwealth of Virginia Department of Environmental Quality issues this permit pursuant to 9 VAC 5 Chapter 80, Article 3 of the Virginia Regulations for the Control and Abatement of Air Pollution (Federal Operating Permit Article 3).

(9 VAC 5-80-490 B.2)

B. SO₂ Allowance Allocations and NO_x Requirements for affected units

Applicable Units	Allowances	2005	2006
CT1-3 Each a 126 MWe/hr (nominally rated) gas or #2 fuel oil fired simple cycle gas turbine.	SO ₂ allowances, allocated by EPA (tons):	None ¹	None ¹
	NO _x limit:	N/A ²	N/A ²

Note 1: The units were not subject to the Acid Rain Program at the time of allocations, so no allowances were assigned in 40 CFR Part 73, Table 2.

Note 2: The units are not subject to 40 CFR 76

(9 VAC 5-80-490 A.4)

C. Additional Requirements and Notes

1. Additional Requirements – The permittee shall submit a complete permit application that includes all of the information required under 40 CFR §72.21 and 72.31 at least 6 months, but no earlier than 18 months, prior to the date of expiration of the existing Phase II Acid Rain permit. EPA forms shall be used.
(9 VAC 5-80-430 C.5)
2. Notes -
 - a. SO₂ allowances may be acquired from other sources in addition to those allocated by U.S. EPA. No revision to this permit is necessary in order for the owners and operators of this unit to hold additional allowances recorded in accordance with 40 CFR Part 73. The owners and operators of this unit remain obligated to hold sufficient allowances to account for SO₂ emissions from this unit in accordance with 40 CFR 72.9(c)(1).
(9 VAC 5-80-420 C.1 and H.1 and 9 VAC 5-80-490 O)
 - b. This unit was not eligible for SO₂ allowance allocation by U.S. EPA under Section 405 of the Clean Air Act and the Acid Rain Program, so none were assigned in 40 CFR Part 73, Table 2.
(9 VAC 5-80-420 C.6)

VIII. NO_x Budget Trading Program Requirements

A. NO_x Budget Permit General Conditions

1. A review of the air emission units included in this permit approval has determined that the equipment listed in the following table meets the definition of a NO_x Budget Unit and falls subject to the NO_x Budget emission limitations under 9 VAC 5-140-40 or for opt-in sources 9 VAC 5-140-800. As required by 9 VAC 5-140-200 A, each NO_x Budget source is required to have a federally enforceable permit. This section of the document represents the NO_x Budget permit.
(9 VAC 5-140-40) or (9 VAC 5-140-800)
2. The NO_x Budget permit will be administrated by the VADEQ under the authority of 9 VAC 5-80-360 et seq., and 9 VAC 5-140-10 et seq.
(9 VAC 5-140-200 A)
3. The following air emission units have been determined to meet the applicability requirements as provided in 9 VAC 5-140-40 A.1 and A.2., and the air emission unit(s) have been determined to meet the applicability requirements to be considered a Low Mass Emissions (LME) Unit as provided in 40 CFR 75.19. To maintain this classification, it is the owner's responsibly to limit NO_x emissions from these individual units to no more than 25 tons of SO₂ annually and less than 100 tons of NO_x annually (October 1 thru September 30) and no more than 50 tons of the allowed annual tons of NO_x during the ozone control period (May 1 thru September 31).
(9 VAC 5-140-40 A)

Table VIII – 1 Facility NO _x Budget Units				
Facility Unit ID	Unit NATS Code	Unit Name and description	Maximum Heat Capacity (MMBtu/hr)	Maximum Generation Capacity (megawatts)
CT1	05208700CTZ1	Westinghouse W501D5 simple cycle gas combustion turbine	1406 (1553)	126
CT2	05208700CTZ2	Westinghouse W501D5 simple cycle gas combustion turbine	1406 (1553)	126
CT3	05208700CTZ3	Westinghouse W501D5 simple cycle gas combustion turbine	1406 (1553)	126

4. This NO_x Budget permit became effective on May 31, 2004.

B. Standard Requirements

1. Continuous Monitoring requirements.

- a. The owners and operators and, to the extent applicable, the NO_x authorized account representative of each NO_x Budget source and each NO_x Budget unit at the source shall comply with the monitoring requirements of 9 VAC 5-140-700 et seq.
- b. The emissions measurements recorded and reported in accordance with (9 VAC 5-140-700 et seq.) (subparts H of 40 CFR 75 and 40 CFR 97) shall be used to determine compliance by the unit with the NO_x Budget emissions limitation under Conditions VIII.B.2.a. through VIII.B.2.h. The following approved methods will be used to calculate NO_x Control Period and Annual emission rates:

Table VIII-2

Pollutant/Stack Parameter	LME Monitoring Methods; 40 CFR 75 (Continuous Emission Monitoring), Subpart B (75.10 to 75.19)
1. Hourly NO _x emission rate (W _{NO_x}) in lb NO _x /hr	Determine NO _x using default values, or parametric monitoring (40 CFR 75.19(c)(1)(iv)(H)(1)). Eq. LM-10: Hrly NO _x Emissions = W _{NO_x} = EF _{NO_x} x HI _{hr} Lb NO _x /hr = lb NO _x /mmBtu x mmBtu/hr (Ref: 40 CFR 75.12(e), 75.19(c)(1)(ii), & 75.19(c)(4)(ii))
2. NO _x emissions rate (EF _{NO_x}) in lb NO _x /mmBtu	Options: a) Use default NO _x rate (40 CFR 75.19 Table LM-2); or b) Use a fuel and unit specific emission rate determined according to 40 CFR 75.19(c)(1)(iv) for those hours where water-to-fuel ratio is within the acceptable range specified in the monitoring plan. (Ref: 40 CFR 75.19(c)(1)(ii) and 75.19(c)(1)(iv)(H)(1))
3. Heat input rate (HI _{hr}) in mmBtu/hr	Options: a) Use unit's maximum rated capacity from 40 CFR 75.19(c)(3)(i)(A), and calculate total heat input for the quarter with Eqn. LM-1, where: Qtrly heat input (all fuels) = HI _{qtr} = ∑ HI _{hr} (for all hours) mmBtu/qtr = Sum of hourly heat input for all hours; or b) Use long term fuel flow method from 40 CFR 75.19(c)(3)(ii).

Table VIII-3

NO _x Determination (Unit-Specific Emission Rates)	
1. Initial stack tests for NO _x	<p>a) Conduct test(s) before end of the ozone season in which the emission rate is first used.</p> <p>b) Test each unit for each fuel in accordance with Section 2.1 of Appendix E, except as stated in 40 CFR 75.19(c)(1)(iv)(A), unless the units currently qualify as identical according to 40 CFR 75.19(c)(1)(iv)(B)(1), in which case representative testing can be conducted on two of three turbines according to 40 CFR 75.19, Table LM-4.</p> <p>c) Establish at least four approximately equally spaced operating load points, ranging from the maximum to the minimum. Select the maximum and minimum from the operating history of the unit during the most recent two years, or if projections for the next five years indicate a significantly different maximum or minimum, choose based on the projection.</p> <p>d) Test at four load points unless the unit qualifies for one of the following exemptions. One load is sufficient if the unit operated at a single load for at least 85% of all operating hours in the previous three years (12 calendar quarters) prior to the calendar quarter of the testing. Likewise, two or three loads are sufficient if the units operated (of all identical units have operated) cumulatively at two or three loads for 85% of the operating hours.</p> <p>e) Use in calculations the highest three-run average NO_x emission rate obtained for any load for a particular fuel for each unit per 40 CFR 75.19(c)(1)(iv)(C)(1) unless identical unit testing is conducted, in which case the highest rate of all the units must be used for all the identical units per 40 CFR 75.19(c)(1)(iv)(C)(3). (Ref: 40 CFR 75.19(c)(1)(iv))</p>
2. Ongoing stack tests	<p>a) Determine new NO_x emission rate(s) every five years (20 calendar quarters), unless changes occur.</p> <p>b) Determine new NO_x emission rate(s) after any changes in fuel supply, physical changes to the unit, changes in manner of unit operation, or if changes to the emission controls occur that may cause a significant increase in the unit's actual emission rate.</p> <p>c) If a multiple-load test was initially performed for a unit (or group of identical units), test may be conducted at the single load which had the highest average emission rate during the initial test. (Ref: 40 CFR 75.19(c)(1)(iv)(D))</p>
3. Water-to-fuel ratio	<p>Monitor and record water-to-fuel ratio for each "unit operating hour", as defined in section 72.2 of 40 CFR Part 72, Subpart A, during test periods and normal operation. (Ref: 40 CFR 75.19(c)(1)(iv)(H))</p>

<p>4. Onsite QC/QA plan</p>	<p>a) Unless the requirements of section 2.1.4.2 of 40 CFR 75, Appendix D are met concerning use of commercial gas or oil flowmeters, the accuracy of each fuel flowmeter shall be tested prior to use, and at least once every four “Fuel flowmeter QA operating quarters”, as defined in section 72.2 of 40 CFR Part 72, Subpart A. In no case shall more than 20 calendar quarters elapse between checks. (Ref: Sections 2.1.4 & 2.1.6 of 40 CFR 75 Appendix D)</p> <p>b) Develop and keep an onsite quality assurance plan that explains procedures used to document proper operation of NO_x emission controls (water injection). The plan shall include parameters monitored (water-to-fuel ratio), and acceptable ranges for each parameter used to determine proper emission control operation. (Ref: 40 CFR 75.19(e)(5))</p>
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Table VIII-4

Heat Input Determination (Long Term Fuel Flow Method)	
1. Quarterly fuel use	Options: a) Use fuel billing records; b) Measure oil tank volumes by one of the approved methods in 40 CFR 75.19(c)(3)(ii)(B); or c) Record flow with a certified fuel flowmeter. (Ref: 40 CFR 75.19(c)(3)(ii)(B))
2. Fuel heat content (mmBtu/gallon)	Options: a) Use default gross calorific values from Table LM-5 of 40 CFR 75.19; or b) Sample and analyze fuels in accordance with Sections 2.2 and 2.3 of Appendix D; use each fuel's highest gross calorific value recorded during previous calendar year. (Ref: 40 CFR 75.19(c)(3)(ii)(C))
3. Total heat input ($HI_{fuel\ qtr}$) during a quarter from a particular fuel	LM-3: $HI_{fuel\ qtr} = Q_{qtr} \times QCV_{max} / 10^6$ mmBtu/quarter = gal or scf/qtr x Btu/gal (or Btu/scf) / 10^6 (Ref: 40 CFR 75.19(c)(3)(ii)(E))
4. Total heat input ($HI_{qtr-total}$) during a quarter from all fuels combined	LM-4: $HI_{qtr-total} = \sum HI_{fuel\ qtr}$ (for all fuels) mmBtu/quarter = Sum quarterly heat inputs for all fuels. (Ref: 40 CFR 75.19(c)(3)(ii)(F))
5. Sum of hourly power generation operating rates for a unit over the quarter (MW_{qtr})	LM-5: $MW_{qtr} = \sum MW$ (for all hours) MW/quarter = Sum of the hourly operating rate for every hour in the quarter. (Ref: 40 CFR 75.19(c)(3)(ii)(H))
6. Total quarterly heat input apportioned to each hour in a quarter (if LME unit is not included in a group of LME units with a common fuel supply)	LM-7: $HI_{hr} = HI_{qtr-total} \times MW_{hr} / MW_{qtr}$ mmBtu/hr = mmBtu/qtr x MW for the hr / sum of operating loads during the quarter. (Ref: 40 CFR 75.19(c)(3)(ii)(I))
7. Total quarterly heat input apportioned to each hour in a quarter (if LME unit is included in a group of LME units with a common fuel supply)	LM-7a: $HI_{hr} = HI_{qtr-total} \times MW_{hr} / \sum MW_{qtr}$ (for all units) mmBtu/hr = mmBtu/qtr x MW for the hr / sum of quarterly loads for all units in group. (Ref: 40 CFR 75.19(c)(3)(ii)(J))

2. Nitrogen oxides requirements.

- a. The owners and operators of each NO_x Budget source and each NO_x Budget unit at the source shall hold NO_x allowances available for compliance deductions under 9 VAC 5-140-540 A, B, E, or F, as of the NO_x allowance transfer deadline, in the unit's compliance account and the source's overdraft account in an amount not less than the total NO_x emissions for the control period from the unit, as determined in accordance with Article 8 (9 VAC 5-140-700 et seq.), plus any amount necessary to account for actual utilization under 9 VAC 5-140-420 E for the control period or to account for excess emissions for a prior control period under 9 VAC 5-140-540 D or to account for withdrawal from the NO_x Budget Trading Program, or a change in regulatory status, of a NO_x Budget opt-in unit under 9 VAC 5-140-860 or 9 VAC 5-140-870.
(9 VAC 5-140-60 C.1)
- b. Each ton of nitrogen oxides emitted in excess of the NO_x Budget emissions limitation shall constitute a separate violation of the Clean Air Act, and applicable Virginia Air Pollution Control law.
(9 VAC 5-140-60 C.2)
- c. A NO_x Budget unit shall be subject to the requirements under 9 VAC 5-140-60 C.1 starting on the later of May 31, 2004.
(9 VAC 5-140-60 C.3)
- d. NO_x allowances shall be held in, deducted from, or transferred among NO_x Allowance Tracking System accounts in accordance with 9 VAC 5-140-400 et seq., 9 VAC 5-140-500 et seq., 9 VAC 5-140-600 et seq., and 9 VAC 5-140-800 et seq.
(9 VAC 5-140-60 C.4)
- e. A NO_x allowance shall not be deducted, in order to comply with the requirements under 9 VAC 5-140-60 C.1 for a control period in a year prior to the year for which the NO_x allowance was allocated.
(9 VAC 5-140-60 C.5)
- f. A NO_x allowance allocated by the permitting authority or the administrator under the NO_x Budget Trading Program is a limited authorization to emit one ton of nitrogen oxides in accordance with the NO_x Budget Trading Program. No provision of the NO_x Budget Trading Program, the NO_x Budget permit application, the NO_x Budget permit, or an exemption under 9 VAC 5-140-50 and no provision of law shall be construed to limit the authority of the United States or the State to terminate or limit such authorization.
(9 VAC 5-140-60 C.6)
- g. A NO_x allowance allocated by the permitting authority or the administrator under the NO_x Budget Trading Program does not constitute a property right.
(9 VAC 5-140-60 C.7)
- h. Upon recordation by the administrator under 9 VAC 5-140-500 et seq., 9 VAC 5-140-600 et seq., or 9 VAC 5-140-800 et seq., every allocation, transfer, or deduction of a NO_x allowance to or from a NO_x Budget unit's compliance account or the overdraft account of the source where the unit is located is deemed to amend automatically, and become a part of, any NO_x Budget permit of the NO_x Budget unit by operation of law without any further review.
(9 VAC 5-140-60 C.8)

3. Excess emissions requirements:

The owners and operators of a NO_x Budget unit that has excess emissions in any control period shall:

- a. Surrender the NO_x allowances required for deduction under 9 VAC 5-140-540 D 1; and

- b. Pay any fine, penalty, or assessment or comply with any other remedy imposed under 9 VAC 5-140-540 D 3.
(9 VAC 5-140-60 D)

C. Recordkeeping and Reporting Requirements.

The following requirements concerning recordkeeping and reporting shall apply:

1. Unless otherwise provided, the owners and operators of the NO_x Budget source and each NO_x Budget unit at the source shall keep on site at the source each of the following documents for a period of five years from the date the document is created. This period may be extended for cause, at any time prior to the end of five years, in writing by the permitting authority or the administrator.
 - a. The account certificate of representation for the NO_x authorized account representative for the source and each NO_x Budget unit at the source and all documents that demonstrate the truth of the statements in the account certificate of representation, in accordance with 9 VAC 5-140-130; provided that the certificate and documents shall be retained on site at the source beyond such five-year period until such documents are superseded because of the submission of a new account certificate of representation changing the NO_x authorized account representative.
 - b. All emissions monitoring information, in accordance with 9 VAC 5-140-700 et seq. of this part; provided that to the extent that 9 VAC 5-140-700 et seq. provides for a three-year period for recordkeeping, the three-year period shall apply.
 - c. Copies of all reports, compliance certifications, and other submissions and all records made or required under the NO_x Budget Trading Program
 - d. Copies of all documents used to complete a NO_x Budget permit application and any other submission under the NO_x Budget Trading Program or to demonstrate compliance with the requirements of the NO_x Budget Trading Program.
(9 VAC 5-140-60 E.1)
2. The NO_x authorized account representative of a NO_x Budget source and each NO_x Budget unit at the source shall submit the reports and compliance certifications required under the NO_x Budget Trading Program, including those under 9 VAC 5-140-300 et seq., 9 VAC 5-140-700 et seq., or 9 VAC 5-140-800 et seq.
(9 VAC 5-140-60 E.2)

D. Emission Testing

1. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports will be provided at the appropriate locations.
(9 VAC 5-50-30 and 9 VAC 5-140-710)
2. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following test methods in accordance with procedures approved by the DEQ as follows:

Pollutant or Stack Parameter	Test Method 40 CFR 60
NO _x Concentration	USEPA Method 20
Moisture	USEPA Method 4
Diluent gas	USEPA Method 3A

(9 VAC 5-140-700 to 710)

E. Liability

1. Any person who knowingly violates any requirement or prohibition of the NO_x Budget Trading Program, a NO_x Budget permit, or an exemption under 9 VAC 5-140-50 shall be subject to enforcement pursuant to applicable State or Federal law.
(9 VAC 5-140-60 F.1)
2. Any person who knowingly makes a false material statement in any record, submission, or report under the NO_x Budget Trading Program shall be subject to criminal enforcement pursuant to the applicable State or Federal law.
(9 VAC 5-140-60 F.2)
3. No permit revision shall excuse any violation of the requirements of the NO_x Budget Trading Program that occurs prior to the date that the revision takes effect.
(9 VAC 5-140-60 F.3)
4. Each NO_x Budget source and each NO_x Budget unit shall meet the requirements of the NO_x Budget Trading Program.
(9 VAC 5-140-60 F.4)
5. Any provision of the NO_x Budget Trading Program that applies to a NO_x Budget source or the NO_x authorized account representative of a NO_x Budget source shall also apply to the owners and operators of such source and of the NO_x Budget units at the source.
(9 VAC 5-140-60 F.5)
6. Any provision of the NO_x Budget Trading Program that applies to a NO_x Budget unit or the NO_x authorized account representative of a NO_x budget unit shall also apply to the owners and operators of such unit. Except with regard to the requirements applicable to units with a common stack under Article 8 (9 VAC 5-140-700 et seq.), the owners and operators and the NO_x authorized account representative of one NO_x Budget unit shall not be liable for any violation by any other NO_x Budget unit of which they are not owners or operators or the NO_x authorized account representative and that is located at a source of which they are not owners or operators or the NO_x authorized account representative.
(9 VAC 5-140-60 F.6)

F. Effect on Other Authorities.

No provision of the NO_x Budget Trading Program, a NO_x Budget permit application, a NO_x Budget permit, or an exemption under 9 VAC 5-140-50 shall be construed as exempting or excluding the owners and operators and, to the extent applicable, the NO_x authorized account representative of a NO_x Budget source or NO_x Budget unit from compliance with any other provision of the applicable, approved State implementation plan, a federally enforceable permit, or the Clean Air Act.

(9 VAC 5-140-60 G)